UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/961,421	09/25/2001	Kengo Kinumura	35.C15830	6891

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EXAMINER
BURLESON, MICHAEL L

ART UNIT	PAPER NUMBER
2626	

DATE MAILED: 05/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/961,421	KINUMURA ET AL.
	Examiner	Art Unit
	Michael Burleson	2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *22-33* is/are allowed.

6)☒ Claim(s) *1,2,4-6,8-10,12,13,15,16,18 and 19* is/are rejected.

7)☒ Claim(s) *3,7,11,14,17,20 and 21* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☒ All   b)☐ Some *   c)☐ None of:

   1.☒ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Priority

1.   Acknowledgment is made of applicant's claim for foreign priority under 35

U.S.C. 119(a)-(d). The certified copies have been filed on 09/29/2000 and 08/09/2001.

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

kaw   1,4,5,8,9,12,13,15 and 18 are

2.   Claims ~~1~~ rejected under 35 U.S.C. 102(e) as being anticipated by Hayashi et al.

US 6819439.

3.   Regarding claim 1, Hayashi et al. teaches of a scanner (220) that copies a

document and the image signal is outputted (column 10,lines 56-60), this reads on an

image reading apparatus including photoelectric conversion means for photoelectrically

converting a target image into an image signal and outputting the image signal.

Hayashi et al. teaches of a image processing printer γ-correction circuit (209) and a

gradation processing circuit (210) (column 10,lines 42-51,column 13,lines 30-47), which

reads on a first conversion means for performing gradation conversion and gamma

correction on the image signal outputted from the photoelectric conversion means, and

output means for outputting the image signal converted the first conversion means.

Hayashi et al. teaches of an I/F selector (211) and an image processing printer γ -

correction circuit (212) in which gradation conversion is performed (column 10,lines 51-

55,column 12,lines 60-64, column 13, lines 1-6 and figure 4). This reads on an

apparatus including input means for inputting the image signal outputted from the output

means and second conversion means for performing gradation conversion and gamma

correction on the image signal inputted by the input means.

4.   Regarding claim 4, Hayashi et al. teaches of exposure lamp (120) that irradiates

a scanning light to a document (column 9,lines 25-27), which reads on a light source

that illuminates the target image.

5.   Regarding claim 5, Hayashi et al. teaches of a scanner (220) that copies a

document and the image signal is outputted (column 10,lines 56-60), this reads on the

steps of photoelectrically converting a target image into an image signal and outputting

the image signal. Hayashi et al. teaches of a image processing printer γ-correction

circuit (209) and a gradation processing circuit (210) (column 10,lines 42-51,column

13,lines 30-47), which reads on performing gradation conversion and gamma correction

on the image signal outputted from the photoelectric conversion means, and output

means for outputting the image signal converted the first conversion means and

outputting the image signal converted by the first conversion means from an image

reading apparatus. Hayashi et al. teaches of an I/F selector (211) and an image

processing printer γ -correction circuit (212) in which gradation conversion is performed

(column 10,lines 51-55,column 12,lines 60-64, column 13, lines 1-6 and figure 4). This reads on inputting the outputted image signal and performing gradation conversion and gamma correction on the inputted image signal by using the second conversion means.

6.   Regarding claim 8, Hayashi et al. teaches of exposure lamp (120) that irradiates a scanning light to a document (column 9,lines 25-27), which reads on a light source that illuminates the target image.

7.   Regarding claim 9, Hayashi et al. teaches of a scanner IPU section and a printer section (column 10,lines 42-55), this reads on an image processing apparatus that is used in combination with an apparatus including second conversion means for performing gradation conversion and gamma correction on an input image signal. Hayashi et al. teaches of a scanner (220) that copies a document and the image signal is outputted (column 10,lines 56-60), this reads on photoelectric conversion means for photoelectrically converting a target image into an image signal and outputting the image signal. Hayashi et al. teaches of a image processing printer γ -correction circuit (209) and a gradation processing circuit (210) (column 10,lines 42-51,column 13,lines 30-47), which reads on a first conversion means for performing gradation conversion and gamma correction on the image signal outputted from the photoelectric conversion means, and output means for outputting the image signal converted the first conversion means.

8.   Regarding claim 12, Hayashi et al. teaches of exposure lamp (120) that irradiates a scanning light to a document (column 9,lines 25-27), which reads on a light source that illuminates the target image.

9.   Regarding claim 13, Hayashi et al. teaches of a scanner (220) that copies a

document and the image signal is outputted (column 10,lines 56-60). Hayashi et al.

teaches of an image processing printer γ -correction circuit (209) and a gradation

processing circuit (210) and a selector (3) that outputs the image signal data (column

10,lines 42-51,column 13,lines 30-47 and figure 4). This reads on an image processing

apparatus that is used in combination with an image reading apparatus including

photoelectric conversion means for photoelectrically converting a target image into an

image signal and outputting the image signal, a first conversion means for performing

gradation conversion and gamma correction on the image signal outputted from the

photoelectric conversion means, and output means for outputting the image signal

converted the first conversion means. Hayashi et al. teaches of an I/F selector (211)

and an image processing printer γ -correction circuit (212) in which gradation

conversion is performed (column 10,lines 51-55,column 12,lines 60-64, column 13, lines

1-6 and figure 4). This reads on an input means for inputting the image signal outputted

from the output means and second conversion means for performing gradation

conversion and gamma correction on the image signal inputted by the input means.

10.   Regarding claim 15, Hayashi et al. teaches of a scanner IPU section and a

printer section (column 10,lines 42-55), this reads on an image processing apparatus

that is used in combination with an apparatus including second conversion means for

performing gradation conversion and gamma correction on an input image signal.

Hayashi et al. teaches of a scanner (220) that copies a document and the image signal

is outputted (column 10,lines 56-60), this reads on photoelectrically converting a target

image into an image signal and outputting the image signal. Hayashi et al. teaches of a

image processing printer γ -correction circuit (209) and a gradation processing circuit

(210) (column 10,lines 42-51,column 13,lines 30-47), which reads on performing

gradation conversion and gamma correction on the outputted image signal using first

conversion means and outputting the image signal converted the first conversion

means.

11.   Regarding claim 18, Hayashi et al. teaches of a scanner (220) that copies a

document and the image signal is outputted (column 10,lines 56-60). Hayashi et al.

teaches of an image processing printer γ -correction circuit (209) and a gradation

processing circuit (210) and a selector (3) that outputs the image signal data (column

10,lines 42-51,column 13,lines 30-47 and figure 4). This reads on an image processing

apparatus that is used in combination with an image reading apparatus including

photoelectric conversion means for photoelectrically converting a target image into an

image signal and outputting the image signal, a first conversion means for performing

gradation conversion and gamma correction on the image signal outputted from the

photoelectric conversion means, and output means for outputting the image signal

converted the first conversion means. Hayashi et al. teaches of an I/F selector (211)

and an image processing printer γ -correction circuit (212) in which gradation

conversion is performed (column 10,lines 51-55,column 12,lines 60-64, column 13, lines

1-6 and figure 4). This reads on inputting the image signal outputted from the output

means and performing gradation conversion and gamma correction on signal inputted

the image by using second conversion means.

Claim Rejections - 35 USC § 103

12.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2,6,10,16 and 19 are

13.   Claims 2 rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi et

al. US 6819439 in view of Tadenuma et al. US 5710871.

14.   Regarding claim 2, Hayashi et al. teaches of a scanner (220) that copies a

document and the image signal is outputted (column 10,lines 56-60), this reads on an

image reading apparatus including photoelectric conversion means for photoelectrically

converting a target image into an image signal and outputting the image signal.

Hayashi et al. teaches of a image processing printer K-correction circuit (209) and a

gradation processing circuit (210) (column 10,lines 42-51,column 13,lines 30-47), which

reads on a first conversion means for performing gradation conversion and gamma

correction on the image signal outputted from the photoelectric conversion means, and

output means for outputting the image signal converted the first conversion means.

Hayashi et al. teaches of an I/F selector (211) and an image processing printer K-

correction circuit (212) in which gradation conversion is performed (column 10,lines 51-

55,column 12,lines 60-64, column 13, lines 1-6 and figure 4). This reads on an

apparatus including input means for inputting the image signal outputted from the output

means and second conversion means for performing gradation conversion and gamma correction on the image signal inputted by the input means.

15.   Hayashi et al. fails to teach of a gamma coefficient used by the first conversion means and a gamma coefficient used by the second conversion means are in an inverse relation.

16.   Tadenuma et al. teaches of an inverse function of the input/output characteristics of the printer (5), which is connected to scanner (1) by the host computer (3) (column 7,lines 8-21 and figure 1). He teaches that the scanner (1) uses gamma curve table coefficients to correct images (column 6,lines 22-24). He also teaches that the fed-back image data (33) reflects the linear input/output characteristics of the scanner (1) and that it is in relation with the non-linear input/output characteristics of printer (5) (column 6,lines 41-52). This reads on a gamma coefficient used by the first conversion means and a gamma coefficient used by the second conversion means are in an inverse relation.

17.   The image processing system of Hayashi et al. could have been modified with the linear/non-linear input/output characteristics of Tadenuma et al. This modification would have been obvious to one of ordinary skill in the art at the time of the invention in order to process an image signal when being transferred between different devices.

18.   Claims 6,10,16 and 19 recite substantially the same limitations as Claim 2, respectively. Therefore, with regard to Claims 6,10,16 and 19, the remarks analogous to those presented above in relation to Claim 2 are respectively applicable.

Allowable Subject Matter

19.   Claims 22-33 are allowed.

20.   Regarding claim 22, Prior art references fails to teach of a computer including a second gamma correction means for performing gradation conversion and gamma correction and a third gamma correction means for performing gradation conversion and gamma correction.

21.   Regarding claim 30, Prior art references fails to teach of a computer that performs the steps of second gamma correction step for performing gradation conversion and gamma correction and a third gamma correction step for performing gradation conversion and gamma correction.

22.   Claims 3,7,11,14,17,20 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication should be directed to Michael Burleson whose telephone number is (571) 272-7460 and fax number is (571) 273-7460. The examiner can normally be reached Monday thru Friday from 8:00 a.m. –

4:30p.m. If attempts to reach the examiner by telephone are unsuccessful, the

examiner's supervisor, Kimberly Williams can be reached at (571) 272-7471

Michael Burleson
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Art Unit 2626

Mlb
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